Group III Nitride Semiconductor Device and its Method of Manufacture

Abstract of the Disclosure

Disclosed is a Group III nitride semiconductor device comprising a stress-absorbing layer having: an amorphous silicon nitride layer, an aluminum interlayer, an amorphous aluminum nitride pre-layer and a polycrystalline Group III nitride layer containing aluminum. The stress-absorbing layer is located between a silicon substrate and a Group III nitride semiconductor, for alleviating stress resulted from different lattice constants between the Group III nitride substance and the silicon substrate, thereby preventing cracking of the Group III nitride semiconductor due to the stress. Further disclosed is a method of manufacturing Group III nitride semiconductor device.